



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

RBW6405G07331-3G-3

Job Sheet 172530



Part No: RBW6405G07331-3G-3

Job Qty: 4 ea

Part Name: Extractor



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 2/20/18

Job Tracking No:

Due Date: 2/28/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG RBW6405G07331-3G-3 REV A IPP REV A 18.02.15 NEW ISSUE RQ VERIFIED BY DP

Ship Via:

2  
DAS  
45  
9.89

2018-02-22

### Bill of Materials

### Job Routing

| Op No | Operation          | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off |
|-------|--------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|----------|
|       |                    |       |            |          | Setup hrs | Run Hrs | Workcenter / Supplier | Lead Time |          |
| 90    | Start up Operation | 4 Ea  |            | 2/27/18  | 0.00      | 0.00    | Start Up Machining-4  |           | 18-3-25  |
| 120   | Mori Seiki         | 4 pcs |            | 2/28/18  | 0.25      | 1.00    | MORI SL-154           |           | 18       |
| 130   | QC                 | 4 pcs |            | 2/28/18  | 0.00      | 0.00    | QC2 Machining-5       |           | 18       |
| 160   | QC                 | 4 pcs |            | 2/28/18  | 0.00      | 0.00    | QC8 Machining-5       |           | 18-03-26 |
| 170   | Outsource          | 4 pcs |            | 2/28/18  | 0.00      | 0.00    | Outsource1            |           | 18-4-12  |
| 200   | Outsource          | 4 pcs |            | 2/28/18  | 0.00      | 0.00    | Outsource3            |           | 18-4-12  |
| 210   | Packaging          | 4 pcs |            | 2/28/18  | 0.00      | 0.00    | Packaging2            |           | 18-4-12  |
| 220   | QC                 | 4 pcs |            | 2/28/18  | 0.00      | 0.00    | QC6                   |           | 38       |
| 230   | Packaging          | 4 pcs |            | 2/28/18  | 0.00      | 0.00    | Packaging3-2          |           | 18-04-19 |
| 240   | QC21-SA            | 4 Ea  |            | 2/28/18  | 0.00      | 0.00    | QC21                  |           | GA098    |

Part Op 120 - 1-Machine as per folio FB 868 FOLIO REV: DWG REV: 2-Debur  
Descriptions: 170 - HEAT TREAT TO RC 55-60 1--Issue P/O to Metcore ; P/O 029483 RC 2-Bead blast 3-  
Certificate of Conformity is required \*\*\*NOTE\*\*\* DROP SHIP TO FINISHER Metcore to ship directly to Groupe Altech or  
ATG  
200 - -Issue P/O to Groupe Altech: P/O 039584, -Cadmium plating, QQ-P-416F TYPE II, CLASS II -Color; Yellow  
-Certificate of Conformity is required  
210 - Receive  
230 - IDENTIFY AND STOCK

APR 11 2018

### Job BOM

| Part / Item       | Component Name | Quantity          | Operation             | Container |
|-------------------|----------------|-------------------|-----------------------|-----------|
| M4140B0.500X0.500 | TBD            | 1.5732 (.3933 ea) | 90-Start up Operation |           |

### Job Allocations

| Operation             | Component Part    | Required | Inventory | Allocated |
|-----------------------|-------------------|----------|-----------|-----------|
| 90-Start up Operation | M4140B0.500X0.500 | 2        | 0         | 0         |

M4140B0.750

### Part Specifications

5048046

1.65

Specifications could not be four



Container No: S054599



Part: RBW6405G07331-3G-3

Job No: 172530

Serial No/Batch: S054599

Revision: 2

Inspector:

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
CANADA  
TEL.: 1 613 632-5200  
Email: sales@dartaero.com  
www.dartaerospace.com

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

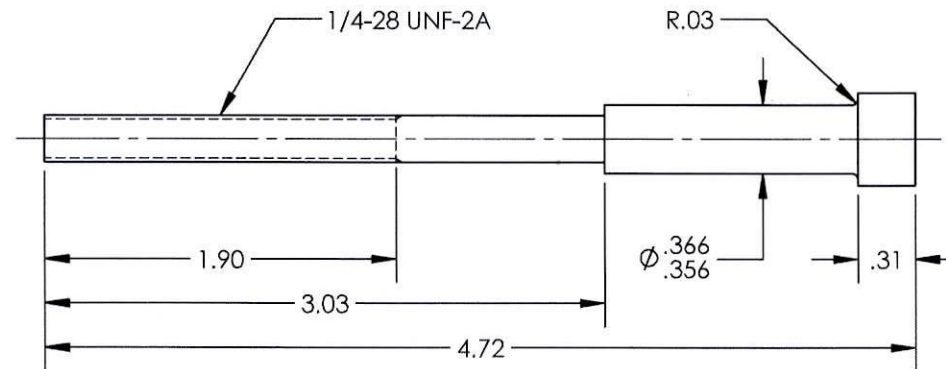
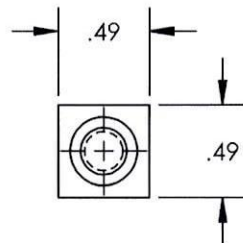
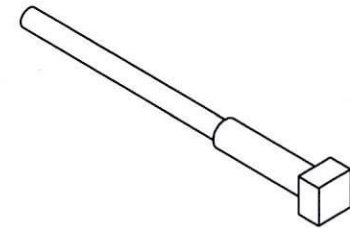
Work Order update only ☐

|                                                              |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                            |                                                |                                               |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------------------------|-----------------------------------------------|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coor. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |                                                            |                                                |                                               |
| Date : _____                                                 | Step #: _____                                                                                                                                                                      | QTY Effective : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                            | MRB (QSI042) Approval                          |                                               |
| Description Work Order Deviation                             |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Disposition                                                |                                                |                                               |
|                                                              |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Completed By                                               |                                                |                                               |
|                                                              |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Lead hand / Supervisor<br>Approval Verification            |                                                |                                               |
|                                                              |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | QC / QA Coordinator<br>Approval                            |                                                |                                               |
| Root Cause                                                   |                                                                                                                                                                                    | FAULT CATEGORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                            |                                                |                                               |
| Environment <input type="checkbox"/>                         | No Re-verification <input type="checkbox"/>                                                                                                                                        | Pressure/Forced <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Temperature/Cure <input type="checkbox"/>                  | Power Loss/Surge <input type="checkbox"/>      | Positioned Wrong <input type="checkbox"/>     |
| Design <input type="checkbox"/>                              | Operator <input type="checkbox"/>                                                                                                                                                  | Bending <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Set-up <input type="checkbox"/>                            | Folio/Program <input type="checkbox"/>         | Outside Dimensions <input type="checkbox"/>   |
| Doc/Data <input type="checkbox"/>                            | Offset/Setup <input type="checkbox"/>                                                                                                                                              | Centre Not Concentric <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | BOM/Route <input type="checkbox"/>                         | Grain <input type="checkbox"/>                 | Over/Under tolerance <input type="checkbox"/> |
| Equip/Tooling <input type="checkbox"/>                       | Supplier <input type="checkbox"/>                                                                                                                                                  | Cracks <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Broken/Damage/Defect <input type="checkbox"/>              | Weld <input type="checkbox"/>                  | Part Incorrect <input type="checkbox"/>       |
| Handling/Pre <input type="checkbox"/>                        | Training <input type="checkbox"/>                                                                                                                                                  | Crimp/Kink/Ripple/Wave <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Inspection Incomplete/Unqualified <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/>    | Part Lost/Missing <input type="checkbox"/>    |
| Material <input type="checkbox"/>                            | Use for Testing <input type="checkbox"/>                                                                                                                                           | Cuffs <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Contamination <input type="checkbox"/>                     | Out of Sequence <input type="checkbox"/>       | Part Moved <input type="checkbox"/>           |
| Internal Transport <input type="checkbox"/>                  | Poor Information <input type="checkbox"/>                                                                                                                                          | Crushing <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Countersink <input type="checkbox"/>                       | Off-set <input type="checkbox"/>               | Drawing <input type="checkbox"/>              |
| Tribal Knowledge <input type="checkbox"/>                    | Rushing <input type="checkbox"/>                                                                                                                                                   | Heat Treat <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Cut Too Short <input type="checkbox"/>                     | Mislabeled <input type="checkbox"/>            | Finish <input type="checkbox"/>               |
| LOA <input type="checkbox"/>                                 | Product Improvement <input type="checkbox"/>                                                                                                                                       | Wave/Twist in Tube <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Instructions Incomplete/Unclear <input type="checkbox"/>   | Fit/Function <input type="checkbox"/>          | Misread <input type="checkbox"/>              |
| Substation <input type="checkbox"/>                          | Process Improvement <input type="checkbox"/>                                                                                                                                       | Marks/Chatter <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Drill Holes <input type="checkbox"/>                       | Misaligned/off center <input type="checkbox"/> | Turning Sequence <input type="checkbox"/>     |
| Past Expiry Date <input type="checkbox"/>                    | Manufacturing Process <input type="checkbox"/>                                                                                                                                     | OTHER : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                            |                                                |                                               |
| Misidentified <input type="checkbox"/>                       | Past Due <input type="checkbox"/>                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                            |                                                |                                               |



This drawing, specifications, and concepts contained here in are the sole property of Dart Aerospace, and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

| REVISIONS |     |             |      |         |          |
|-----------|-----|-------------|------|---------|----------|
| REV       | ECR | DESCRIPTION | DATE | INITIAL | APPROVED |



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 172530MC  
1802-20

-3  
EXTRACTOR

|                                                                                                                           |                                  |
|---------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| <b>DART</b><br>AEROSPACE                                                                                                  |                                  |
| TITLE T/R SCISSORS SHORT COUPLING REMOVAL TOOL                                                                            |                                  |
| DWG NO. RBW6405G07331-3G-3                                                                                                | REV 2                            |
| MAT'L 4140/4142                                                                                                           | DRAWN BY: PERRITT                |
| UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES<br>.XXX ± .005 FRACTIONS ± 1/8<br>.XX ± .01 ANGLES ± 5°<br>.X ± .1 | APPROVED <i>D. Weil</i>          |
| 1. BREAK ALL SHARP EDGES .015 x 45°<br>OR .015R                                                                           | HEAT TREAT RC 55-60              |
| 2. DIMENSIONAL LIMITS APPLY AFTER PLATING                                                                                 | FINISH CAD PLATE YELLOW          |
|                                                                                                                           | SPEC QQ-P-416, TYPE II, CLASS II |
|                                                                                                                           | USED ON MODEL                    |
|                                                                                                                           | AGUSTA                           |
| SCALE 1:1                                                                                                                 | DATE 2/3/2009 SHEET 3 OF 3       |

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                       |                                              |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-----------------------|----------------------------------------------|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div> |  |  |                       |                                              |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | Step #:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | QTY Effective :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  | MRB (QSI042) Approval |                                              |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |                       | Completed By                                 |  |
| <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.1; font-size: 2em;">             WORK ORDER<br/>             NON-CONFORMANCE<br/>             REPORT           </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                       | Lead hand / Supervisor Approval Verification |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                       | QC / QA Coordinator Approval                 |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                       |                                              |  |
| Root Cause                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | FAULT CATEGORY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                       |                                              |  |
| <div style="display: flex; justify-content: space-between;"> <div>           Environment <input type="checkbox"/><br/>           Design <input type="checkbox"/><br/>           Doc/Data <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Pre <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Internal Transport <input type="checkbox"/><br/>           Tribal Knowledge <input type="checkbox"/><br/>           LOA <input type="checkbox"/><br/>           Substation <input type="checkbox"/><br/>           Past Expiry Date <input type="checkbox"/><br/>           Misidentified <input type="checkbox"/> </div> <div>           No Re-verification <input type="checkbox"/><br/>           Operator <input type="checkbox"/><br/>           Offset/Setup <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Training <input type="checkbox"/><br/>           Use for Testing <input type="checkbox"/><br/>           Poor Information <input type="checkbox"/><br/>           Rushing <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Past Due <input type="checkbox"/> </div> </div> |  | <div style="display: flex; justify-content: space-between;"> <div>           Pressure/Forced <input type="checkbox"/><br/>           Bending <input type="checkbox"/><br/>           Centre Not Concentric <input type="checkbox"/><br/>           Cracks <input type="checkbox"/><br/>           Crimp/Kink/Ripple/Wave <input type="checkbox"/><br/>           Cuffs <input type="checkbox"/><br/>           Crushing <input type="checkbox"/><br/>           Heat Treat <input type="checkbox"/><br/>           Wave/Twist in Tube <input type="checkbox"/><br/>           Marks/Chatter <input type="checkbox"/> </div> <div>           Temperature/Cure <input type="checkbox"/><br/>           Set-up <input type="checkbox"/><br/>           BOM/Route <input type="checkbox"/><br/>           Broken/Damage/Defect <input type="checkbox"/><br/>           Inspection Incomplete/Unqualified <input type="checkbox"/><br/>           Contamination <input type="checkbox"/><br/>           Countersink <input type="checkbox"/><br/>           Cut Too Short <input type="checkbox"/><br/>           Instructions Incomplete/Unclear <input type="checkbox"/><br/>           Drill Holes <input type="checkbox"/> </div> <div>           Power Loss/Surge <input type="checkbox"/><br/>           Folio/Program <input type="checkbox"/><br/>           Grain <input type="checkbox"/><br/>           Weld <input type="checkbox"/><br/>           Wrong Stock Pulled <input type="checkbox"/><br/>           Out of Sequence <input type="checkbox"/><br/>           Off-set <input type="checkbox"/><br/>           Mislabeled <input type="checkbox"/><br/>           Fit/Function <input type="checkbox"/><br/>           Misaligned/off center <input type="checkbox"/> </div> <div>           Positioned Wrong <input type="checkbox"/><br/>           Outside Dimensions <input type="checkbox"/><br/>           Over/Under tolerance <input type="checkbox"/><br/>           Part Incorrect <input type="checkbox"/><br/>           Part Lost/Missing <input type="checkbox"/><br/>           Part Moved <input type="checkbox"/><br/>           Drawing <input type="checkbox"/><br/>           Finish <input type="checkbox"/><br/>           Misread <input type="checkbox"/><br/>           Turning Sequence <input type="checkbox"/> </div> </div> |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                       |                                              |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | OTHER : <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                       |                                              |  |







Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# **PURCHASE ORDER** **PO039483**

**Supplier:** MEI001-VC  
Metcor Inc.  
560 Boul. Arthur Sauve  
Saint-Eustache  
QC  
J7R 5A8 Canada  
Phone: 450 473 1884  
Fax: 450 491 5498

**PO No:** PO039483  
**PO Date:** 4/2/18  
**Due Date:** 4/12/18  
**Purchase Order**  
**Revision:**  
**Revision Date:**  
**Ship-To Contact:** Tsimiklis, ChrisoulaPhone:

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pymt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:**

## **Items**

| Line Item | Job    | Part     | Description                                                                                                                                                                                       | Status | Due Date | Order Quantity | Received Quantity | Balance       | Unit Price (CAD) | Extended Price |
|-----------|--------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|----------------|-------------------|---------------|------------------|----------------|
| 1         | 174484 | D5304-1  | Crossbolt Spacer<br>1-Issue P/O to Metcore ;<br>P/O<br>HEAT TREAT TO T4/T42 CONDITION<br>MIN. UTS=30 KSI (60 HREW MIN)<br>NOTE: DETAIL C OF C REQUIRED<br><br>PART ARE MADE FROM 6061-T6 MATERIAL | Firmed | 4/12/18  | 22 pcs         | 0 pcs             | 22 pcs        | \$1.207052/pcs   | \$26.56        |
| 2         | 174482 | D4686-1  | Spacer<br>HEAT TREAT TO T4/T42 CONDITION<br>MIN. UTS=30 KSI (60 HREW MIN)<br>NOTE: DETAIL C OF C REQUIRED<br><br>PART ARE MADE FROM 6061-T6 MATERIAL                                              | Firmed | 4/12/18  | 25 pcs         | 0 pcs             | 25 pcs        | \$1.207052/pcs   | \$30.18        |
| 3         | 171982 | 646.3314 | Blade<br>HEAT TREAT AS PER DWG 646.3300<br>FINISH: HEAT TREAT TO 58-62 RC<br>ROCKWELL HARDNESS<br><br>PART ARE MADE FROM AISI A2 TOOL STEEL                                                       | Firmed | 4/12/18  | 16 pcs         | 0 pcs<br>16v      | 16 pcs<br>16v | \$19.50/pcs      | \$312.00       |

| Items                                                        |        |                    |                                                                                                                                                                                                                                                                                                         |        |          |                |                   |         |                             |                |
|--------------------------------------------------------------|--------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|----------------|-------------------|---------|-----------------------------|----------------|
| Line Item                                                    | Job    | Part               | Description                                                                                                                                                                                                                                                                                             | Status | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD)            | Extended Price |
| 4                                                            | 173722 | D4202-1            | Spacer<br>***HEAT TREAT AS PER DWG D4202***                                                                                                                                                                                                                                                             | Firmed | 4/12/18  | 506 pcs        | 0 pcs             | 506 pcs | \$1.207052/pcs              | \$610.77       |
| 5                                                            | 172530 | RBW6405G07331-3G-3 | Extractor<br>HEAT TREAT TO RC 55-60<br>1-Issue P/O to Metcore ;<br>P/O _____<br>RC _____<br><br>2-Bead blast<br>3- Certificate of Conformity is required<br>***NOTE*** DROP SHIP TO FINISHER<br>Metcore to ship directly to Groupe Altech or ATG<br><br>Rush part - need it ready in 7 days.<br>Thanks! | Firmed | 4/12/18  | 4 pcs<br>✓     | 0 pcs<br>4x       | 4 pcs   | \$75.00/pcs<br>At 18/01/12  | \$300.00       |
| Line Item Note: Rush part - need it ready in 7 days. Thanks! |        |                    |                                                                                                                                                                                                                                                                                                         |        |          |                |                   |         |                             |                |
| 6                                                            | 171605 | RBW6405G06131-3G-7 | Washer<br>1-Issue P/O to Metcore ;<br>P/O _____<br>RC 50-55<br>2-Bead blast<br>3- Certificate of Conformity is required<br>***NOTE*** DROP SHIP TO FINISHER<br>Metcore to ship directly to Groupe Altech***                                                                                             | Firmed | 4/12/18  | 2 pcs<br>✓     | 0 pcs<br>2x       | 2 pcs   | \$150.00/pcs<br>At 18/01/12 | \$300.00       |
| Grand Total:                                                 |        |                    |                                                                                                                                                                                                                                                                                                         |        |          |                |                   |         |                             | \$1,579.50     |

### Order Notes

## Procurement Quality Clauses

A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)

A022 Apical Processing  
A024 process certifications  
A026 certification of material conformance

A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

**A048 counterfeit parts avoidance, detection, mitigation and disposition program**

### A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.



# METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

## Certificat de Conformité Détaillé

Detailed Certificate of Compliance

| BON DE TRAVAIL<br>order | CHARGEMENT<br>load |
|-------------------------|--------------------|
| 326643                  | 1                  |

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

GROUP ALTECH

2455 ALPERN

ST LAURENT

QC H4S1N9

1

| COMMANDE DU CLIENT<br>customer po                                                                                              | CLASSIFICATION PIECE<br>part classification | MATÉRIEL<br>material                   | MAÎTRE D'OEUVRE<br>prime contractor | PROGRAM     |
|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------|-------------------------------------|-------------|
| 039483                                                                                                                         | N/A                                         | 4140                                   |                                     |             |
| <b>SPÉCIFICATIONS DU PROCÉDÉ</b><br>processing specifications                                                                  |                                             |                                        |                                     |             |
| SEL HARDEN                                                                                                                     |                                             |                                        |                                     |             |
| HARDEN AND TEMPER                                                                                                              |                                             |                                        |                                     |             |
| <b>EXIGENCE / requirement</b> <b>SPÉCIFICATIONS / specified TESTS EXÉCUTÉS / performed</b> <b>RÉSULTATS DE TESTS / results</b> |                                             |                                        |                                     |             |
| HARDNESS                                                                                                                       |                                             | 55 - 60 HRC                            |                                     | 55 - 56 HRC |
| QUANTITÉ<br>quantity                                                                                                           | POIDS<br>weight                             | DESCRIPTEUR<br>parts d                 |                                     |             |
| 4                                                                                                                              | 0.45                                        | RBW6.<br>(4) RBV<br>JOB. 17<br>1 ENVEL |                                     |             |

I Need  
P.O.  
39483

SALT HARDEN 1550F, 40 MIN  
TEMPER 300F, 2 HRS

Heat treatment (HT) was performed with equipment. All HT operations were performed in compliance with specification and documented. No unauthorized changes were made. The material was manufactured, sampled, tested and inspected and found to meet the requirements.

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Le traitement thermique (TT) a été fait en utilisant des équipements en conformité avec la spécification demandée. Toutes les opérations de TT ont été faites en conformité avec les requis de la spécification demandée et toutes les vérifications et les tests demandés ont été faites et documentés. Aucun changement n'a été faite par rapport au TT. On certifie que le matériel a été fabriqué, échantillonné, testé et inspecté en accord avec les spécifications du matériel et le bon de commande et le matériel rencontre les exigences spécifiées.

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Isabel Otero

QA Technician



APPROUVÉ par / Approved by:

Isabel Otero

DATE: 2010 04 02



# METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

## Certificat de Conformité Certificate of Compliance

| BON DE TRAVAIL<br>order | CHARGEMENT<br>load |
|-------------------------|--------------------|
| 326643                  | 1                  |

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

LIVRÉ À / shipped to:

GROUP ALTECH

2455 ALPERN

ST LAURENT

QC H4S1N9

1

| COMMANDE DU CLIENT<br>customer po | CLASSIFICATION PIECE<br>part classification | MATÉRIEL<br>material | MAÎTRE D'OEUVRE<br>prime contractor | PROGRAM |
|-----------------------------------|---------------------------------------------|----------------------|-------------------------------------|---------|
| 039483                            | N/A                                         | 4140                 |                                     |         |

### SPÉCIFICATIONS DU PROCÉDÉ processing specifications

SEL HARDEN

HARDEN AND TEMPER

| EXIGENCE / requirement | SPÉCIFICATIONS / specified | TESTS EXÉCUTÉS / performed | RÉSULTATS DE TESTS / results |
|------------------------|----------------------------|----------------------------|------------------------------|
| HARDNESS               | 55 - 60 HRC                | 4                          | 55 - 58 HRC                  |

| QUANTITÉ<br>quantity | POIDS<br>weight | DESCRIPTION DES PIÈCES<br>parts description                                    |
|----------------------|-----------------|--------------------------------------------------------------------------------|
| 4                    | 0,45            | RBW8405G07331-3G-3<br>(4) RBW8405G07331-3G-3<br>JOB. 172530<br><br>1 ENVELOPPE |

COMMENTAIRES / comments

APPROUVÉ par / Approved by:

DATE: 2018-04-09

Pierre Piché  
Chief Inspector



APPROUVÉ



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# **PURCHASE ORDER** **PO039584**

**Supplier:** GRO002-VC  
Group Altech  
2455 Halpern  
St Laurent  
QC  
H4S 1N9 Canada  
Phone: 514-335-3666  
Fax: 514-335-3868

**PO No:** PO039584  
**PO Date:** 4/12/18  
**Due Date:** 4/20/18  
**Purchase Order**  
**Revision:**  
**Revision Date:**  
**Ship-To Contact:** Tsimiklis, ChrisoulaPhone:

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pynt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:**

## Items

| Line Item | Job    | Part               | Description                                                                                                                                                         | Status | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD) | Extended Price |
|-----------|--------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|----------------|-------------------|---------|------------------|----------------|
| 1         | 171605 | RBW6405G06131-3G-7 | Washer<br>-Issue P/O to Groupe Altech;<br>PO _____<br>-Black oxide finish, MIL-C-13924C Class 1<br>-Certificate of Conformity is required                           | Firmed | 4/20/18  | 2 pcs          | 0 pcs<br>/ 2x     | 2 pcs   | \$60.00/pcs      | \$120.00       |
| 2         | 172530 | RBW6405G07331-3G-3 | Extractor<br>-Issue P/O to Groupe Altech;<br>P/O _____<br>-Cadmium plating, QQ-P-416F TYPE II, CLASS II<br>-Color; Yellow<br>-Certificate of Conformity is required | Firmed | 4/20/18  | 4 pcs          | 0 pcs<br>✓ 4x     | 4 pcs   | \$81.25/pcs      | \$325.00       |

**Grand Total:** \$445.00

## Order Notes

cc'd At 18/4/18

CT.





# Certificat de Conformité / Certificate of Compliance

(008387-1)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9  
 Tel: 514-335-3666 Fax: 514-335-3868  
 www.groupaltech.com

## Bon de Livraison / Packing Slip

**008387 - 1**

Livré à / Ship to

**DART AEROSPACE LTD**  
 1270 ABERDEEN STREET  
 HAWKESBURY, ON, K6A1K7  
 CANADA  
 Tel.: 613-632-5200 Fax.:

Client / Customer:

**DART AEROSPACE LTD**  
 1270 ABERDEEN STREET  
 HAWKESBURY, ON, K6A1K7  
 CANADA  
 BUYER:

| Date expédition<br>Ship date |                                                                           | Créé Par<br>Generated By                                                                                                                | Transport / No de Compte<br>Courier / Acc. No. | Bon de commande Client<br>Customer Purchase Order No. |                 |                   |               |                        |
|------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------|-----------------|-------------------|---------------|------------------------|
| 17-Apr-2018                  |                                                                           | Aman                                                                                                                                    |                                                | 039584                                                |                 |                   |               |                        |
| #Ligne<br>Line#              | No. de Série / # Pièce<br>Part Number /Line Item Details<br>Job # / Ref # | Description pièce(s)                                                                                                                    | CATG.<br>U/M                                   | Comm.<br>/Ordered                                     | Exp/<br>Shipped | Qté NC/<br>NC Qty | Qté<br>Scrap/ | À venir/<br>Back Order |
| 1                            | RBW6405G06131-3G-7<br>Rev.                                                | RBW6405G06131-3G-7<br>01 -OXIDE BLACK [OXIDE BLACK ]<br>MIL-C-13924C CLASS 1                                                            | OXIDE-BLACK<br><br>CH                          | 2                                                     | 2               | 0                 | 0             | 0                      |
| 2                            | RBW6405G07331-3G-3<br>Rev.                                                | RBW6405G07331-3G-3<br>01 -CAD+HYDRO EMB [CADMIUM + HYDROGEN<br>ENBRITALMENT RELIEF 500]<br>CAD PLATE QQ-P-416F<br>TYPE 2 CLASS 2 YELLOW | CADMIUM<br><br>CH                              | 4                                                     | 4               | 0                 | 0             | 0                      |

Notes Additionnelles / Additional Notes

Epaisseur réelle  
Actual Thickness

Inspecteur Qualité  
Quality Inspector

Réçu par  
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.  
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.  
 Our financial and legal responsibility will not be higher than the amount of invoice.